

**Customer Number: 000959**

Attorney's  
Docket  
Number MNI-134CP2

**Declaration, Petition and Power of Attorney for Patent Application**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**32142, 21481, 25964, 21686, NOVEL DEHYDROGENASE MOLECULES AND USES**  
**THEREFOR**

the specification of which

(check one)

       is attached hereto.

X was filed on April 18, 2001 as

Application Serial No. 09/838,561

and was amended on \_\_\_\_\_  
(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design), before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

## CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:

no such applications have been filed.

such applications have been filed as follows

**EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
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I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

60/192,002  
(Application Serial No.)

March 24, 2000  
(Filing Date)

\_\_\_\_\_

\_\_\_\_\_

(Application Serial No.)

(Filing Date)

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

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09/634,955  
(Application Serial No.)

August 8, 2000  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented,pending,aband.)

09/816,760  
(Application Serial No.)

March 23, 2001  
(Filing Date)

\_\_\_\_\_  
(Status)  
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**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

James E. Cockfield	Reg. No. 19,162	Peter C. Lauro	Reg. No. 32,360
Thomas V. Smurzynski	Reg. No. 24,798	DeAnn F. Smith	Reg. No. 36,683
Ralph A. Loren	Reg. No. 29,325	David J. Rikkers	Reg. No. 43,882
Giulio A. DeConti, Jr.	Reg. No. 31,503	Maria C. Laccotripe	Limited Recognition Under 37 C.F.R. § 10.9(b)
Ann Lampert Hammitt	Reg. No. 34,858	Debra J. Milasincic	Reg. No. 46,931
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Kevin J. Canning	Reg. No. 35,470		
Jeanne M. DiGiorgio	Reg. No. 41,710		
Megan E. Williams	Reg. No. 43,270		
Nicholas P. Triano III	Reg. No. 36,397		

all of: LAHIVE & COCKFIELD, LLP, 28 State Street, Boston, MA 02109

and to: Jean M. Silveri	Reg. No. 39,030	Mark F. Boshar	Reg. No. 35,456
Theodore Allen	Reg. No. 41,578	Scott A. Brown	Reg. No. 32,724
Jill E. Uhl	Reg. No. 43,213	George C. Jen	Reg. No. 39,239
Susan M. Perkins	Reg. No. 36,405		

of: Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA 02139

Send Correspondence to Amy E. Mandragouras, Esq. at Customer Number: 000959 whose address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: (name and telephone number)

Amy E. Mandragouras, Esq., (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor Rachel Meyers	Date
Inventor's signature <i>Rachel Meyers</i>	<i>x 10/15/01</i>
Residence 115 Devonshire Road Newton, MA 02468	
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of second inventor William James Cook	Date
Inventor's signature	
Residence 22 Reynolds Avenue Natick, MA 01760	
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of third inventor, if any Mark Williamson	Date
Inventor's signature	
Residence 15 Stonecrest Drive Saugus, MA 01906	
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of fourth inventor, if any

Laura A. Rudolph-Owen

Inventor's signature

Date

Residence

186 Arborway, #1, Jamaica Plain, MA 02130

Citizenship

U.S.A.

Post Office Address (if different)

Full name of sole or first inventor

Ruth Gimeno

Inventor's signature

Date

Residence

250 Commonwealth Avenue, Apt. No. 23, Boston, Massachusetts 02116

Citizenship

U.S.A.

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Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			- Yes      No -
			- Yes      No -
			- Yes      No -
			- Yes      No -
United States of America	US 2011	07/01/2011	- Yes      No -

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OR

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I declare under penalty of perjury that the above information is true and correct.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

(Signature)

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March 24, 2000  
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all of: LAHIVE & COCKFIELD, LLP, 28 State Street, Boston, MA 02109

and to: Jean M. Silveri                          Reg. No. 39,030                  Mark F. Boshar                          Reg. No. 35,456  
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Full name of first inventor Rachel Meyers	Date
Inventor's signature	
Residence 115 Devonshire Road Newton, MA 02468	
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of second inventor William James Cook	Date
Inventor's signature <i>X William James Cook</i>	<i>X 10/9/01</i>
Residence 22 Reynolds Avenue Natick, MA 01760	245 Messer Hill Rd. New London, NH 03257
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of third inventor, if any Mark Williamson	Date
Inventor's signature	
Residence 15 Stonecrest Drive Saugus, MA 01906	
Citizenship U.S.A.	
Post Office Address (if different)	

Full name of fourth inventor, if any

Laura A. Rudolph-Owen

Inventor's signature

Date

Residence

186 Arborway, #1, Jamaica Plain, MA 02130

Citizenship

U.S.A.

Post Office Address (if different)

Full name of sole or first inventor

Ruth Gimeno

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March 24, 2000

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of Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA 02139

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POWER OF ATTORNEY, I, RACHEL MEYERS, do hereby make the following choices  
and I do so in accordance with the laws of the United States in the future and  
hereinafter.

<b>Full name of first inventor</b>	<b>Date</b>
Rachel Meyers	Reg. No. 36,063
<b>Inventor's signature</b>	<b>Date</b>
Rachel Meyers	Reg. No. 41,882
<b>Residence</b>	<b>Date</b>
115 Devonshire Road	Reg. No. 36,063
Newton, MA 02468	Reg. No. 46,931
<b>Citizenship</b>	<b>Date</b>
U.S.A.	Reg. No. 36,063
<b>Post Office Address (if different)</b>	<b>Date</b>
115 Devonshire Road	Reg. No. 36,470
Newton, MA 02468	Reg. No. 41,710
115 Devonshire Road	Reg. No. 36,470
Natick, MA 01760	Reg. No. 36,470

<b>Full name of second inventor</b>	<b>Date</b>
William James Cook	Reg. No. 37,112
<b>Inventor's signature</b>	<b>Date</b>
William James Cook	Reg. No. 37,753
<b>Residence</b>	<b>Date</b>
22 Reynolds Avenue	Reg. No. 36,470
Natick, MA 01760	Reg. No. 39,239
<b>Citizenship</b>	<b>Date</b>
U.S.A.	Reg. No. 36,470
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22 Reynolds Avenue	Reg. No. 36,470
Natick, MA 01760	Reg. No. 39,239

<b>Full name of third inventor, if any</b>	<b>Date</b>
Mark Williamson	10-4-01
<b>Inventor's signature</b>	<b>Date</b>
X Mark Williamson	X 10-4-01
<b>Residence</b>	<b>Date</b>
15 Stonecrest Drive	Reg. No. 36,470
Saugus, MA 01906	Reg. No. 36,470
<b>Citizenship</b>	<b>Date</b>
U.S.A.	Reg. No. 36,470
<b>Post Office Address (if different)</b>	<b>Date</b>
15 Stonecrest Drive	Reg. No. 36,470
Saugus, MA 01906	Reg. No. 36,470

Full name of fourth inventor, if any Laura A. Rudolph-Owen	Date
Inventor's signature	
Residence 186 Arborway, #1, Jamaica Plain, MA 02130	
Citizenship U.S.A.	
Post Office Address (if different) Post Office Name	

Full name of sole or first inventor Ruth Gimeno	Date
Inventor's signature	
Residence 250 Commonwealth Avenue, Apt. No. 23, Boston, Massachusetts 02116	
Citizenship U.S.A.	
Post Office Address (if different) U.S.A.	
Post Office Address (if different)	

Attorney's  
Docket  
Number MNI-134CP2

## Declaration, Petition and Power of Attorney for Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**32142, 21481, 25964, 21686, NOVEL DEHYDROGENASE MOLECULES AND USES**

**THEREFOR**

the specification of which

(check one)

is attached hereto.

was filed on April 18, 2001 as

Application Serial No. 09/838,561

and was amended on \_\_\_\_\_  
(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design) before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

## CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:  Priority  No Priority

no such applications have been filed.

such applications have been filed as follows

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION  or which  
priority was claimed under 35 USC 119(e)(1)

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
X was filed on Aug 18, 2001	18,7001	08/18/01	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION


I declare under penalty of perjury that the above information is true and correct. I further declare that I have reviewed the above information and that it constitutes my own original work and not that of another person. I further declare that I have not previously filed this application or any other application for the same subject matter in the United States or elsewhere, except as specifically indicated in the application, and that I have not made any statement in any application relating to this application which may be construed as a disclaimer of any rights.

I acknowledge that it is my duty to disclose to the Patent Office any prior art known to me to be material to patentability of the subject matter disclosed in Title 35, U.S.C., and that the previous paragraph is sufficient.

**CLAIM FOR BENEFIT OF U.S. PROVISIONAL APPLICATION(S)**

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

60/192 002

7192,502  
(Application Serial No.)

March 24, 2000

(Filing Date)

(Application Serial No.)

(Filing Date)

ALL FOREIGN APPLICATIONS SHIP ANY TIME DURING THE MONTHS OF APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER, AND JANUARY.

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

I hereby claim the benefit under Title 35, United States Code, §120 of any earlier United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the earlier application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date(s) of the earlier application(s) and the national or PCT international filing date of this application. As to subject matter of this application which is common to my earlier application(s), if any, described below, I do not know and do not believe that the same was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date(s) of said earlier application(s), or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date(s) of said earlier application(s) on an application filed more than twelve months (six months if this application is for a design) before the filing of said earlier application(s); and I acknowledge that no application for patent or inventor's certificate on said subject matter has been filed by me or my representatives or assigns in any country foreign to the United States except those identified herein.

09/634,955  
(Application Serial No.)

August 8, 2000  
(Filing Date)

(Status)  
(patented,pending,aband.)

09/816,760  
(Application Serial No.)

March 23, 2001  
(Filing Date)

(Status)  
(patented,pending,aband.)

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Dated: January 2003

James E. Cockfield	Reg. No. 19,162	Peter C. Lauro	Reg. No. 32,360
Thomas V. Smurzynski	Reg. No. 24,798	DeAnn F. Smith	Reg. No. 36,683
Ralph A. Loren	Reg. No. 29,325	David J. Rikkers	Reg. No. 43,882
Giulio A. DeConti, Jr.	Reg. No. 31,503	Maria C. Laccotripe	Limited Recognition Under 37 C.F.R. § 10.9(b)
Ann Lampert Hammitt	Reg. No. 34,858	Debra J. Milasincic	Reg. No. 46,931
Elizabeth A. Hanley	Reg. No. 33,505	David R. Burns	Reg. No. 46,590
Amy E. Mandragouras	Reg. No. 36,207	Sean D. Detweiler	Reg. No. 42,482
Anthony A. Laurentano	Reg. No. 38,220	Peter S. Stecher	Reg. No. 47,259
Jane E. Remillard	Reg. No. 38,872	Cynthia L. Kanik	Reg. No. 37,320
Jeremiah Lynch	Reg. No. 17,425		
Kevin J. Canning	Reg. No. 35,470		
Jeanne M. DiGiorgio	Reg. No. 41,710		
Megan E. Williams	Reg. No. 43,270		
Nicholas P. Triano III	Reg. No. 36,397		

all of: LAHIVE & COCKFIELD, LLP, 28 State Street, Boston, MA 02109

and to: Jean M. Silveri                          Reg. No. 39,030                  Mark F. Boshar                          Reg. No. 35,456  
                         Theodore Allen                          Reg. No. 41,578                  Scott A. Brown                          Reg. No. 32,724  
                         Jill E. Uhl                          Reg. No. 43,213                  George C. Jen                          Reg. No. 39,239  
                         Susan M. Perkins                          Reg. No. 36,405

of Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA 02139

(Application Serial No.) (Filing Date) (Status)  
Send Correspondence to Amy E. Mandragouras, Esq. at Customer Number: 000959 whose  
address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: (name and telephone number)

Amy E. Mandragouras, Esq., (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

PETER J. ALMERS, Jr., a named inventor, hereby appoint the following attorney  
to act for me in the preparation and conduct all business in the Patent and  
Trademark Office.

Full name of first inventor	Reg. No. 33,563	Date	Reg. No. 35,250
Rachel Meyers	Reg. No. 33,563	Reg. No. 33,563	Reg. No. 35,250
Inventor's signature	R.M.	Deborah J. Milstein David R. Burns	Reg. No. 35,250
Residence	115 Devonshire Road Newton, MA 02468	Reg. No. 33,563 Reg. No. 36,207	Reg. No. 35,250 Reg. No. 46,530
Citizenship	U.S.A.	Reg. No. 33,563 Reg. No. 36,207	Reg. No. 35,250 Reg. No. 47,259
Post Office Address (if different)	15-479 William M. Chockle Reg. No. 41,719	Reg. No. 43,213 Reg. No. 51,307	Reg. No. 35,250 Reg. No. 39,219

Full name of second inventor	William James Cook	Reg. No. 35,250
Inventor's signature	Reg. No. 35,250	Reg. No. 35,250
Residence	22 Reynolds Avenue Natick, MA 01760	Reg. No. 43,213 Reg. No. 50,495
Citizenship	U.S.A.	Reg. No. 35,250
Post Office Address (if different)	Mark's address, 183 address is	Customer Number 000959 whose

Full name of third inventor, if any	Mark Williamson	Date
Inventor's signature	Reg. No. 35,250	Reg. No. 35,250
Residence	15 Stohecrest Drive Saugus, MA 01906	I petition that I or my partner be substituted for the inventor of the invention described and claimed in the application for patent now being filed, and that the said specification and drawings be taken to represent the true and correct description of the invention.
Citizenship	U.S.A.	I declare that I have made the statements contained in this application true to the best of my knowledge and that such statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.
Post Office Address (if different)		

Full name of fourth inventor, if any	
Laura A. Rudolph-Owen	
Inventor's signature	Date
<i>X Laura Rudolph Owen</i>	<i>X 10/3/01</i>
Residence	
186 Arborway, #1, Jamaica Plain, MA 02130	
Citizenship	02468
U.S.A. ship	
Post Office Address (if different)	
Post Office Address (if different)	

Full name of sole or first inventor	
Ruth Gimeno	
Inventor's signature	Date
<i>Ruth Gimeno</i>	
Inventor's signature	
Residence	
250 Commonwealth Avenue, Apt. No. 23, Boston, Massachusetts 02116	
Citizenship	Avenue
U.S.A. MA 01700	
Post Office Address (if different)	
U.S.A.	
Post Office Address (if different)	

Full name of third inventor, if any	
Natalie M. O'Neil	
Inventor's signature	
<i>Natalie M. O'Neil</i>	
Residence	
15 Saville Street	
Somerville, MA 02144	
Citizenship	U.S.A.
Post Office Address (if different)	

Customer Number: 000959

Attorney's  
Docket  
Number MNI-134CP2

Inventor

## Declaration, Petition and Power of Attorney for Patent Application

Revised

As a below named inventor, I hereby declare that:

My residence, post-office address and citizenship are as stated below next to my name,  
Post Office Address of Inventor

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**32142, 21481, 25964, 21686, NOVEL DEHYDROGENASE MOLECULES AND USES****THEREFOR**

the specification of which

(check one)

250 Commonwealth Avenue, Apt. No. 23, Boston, Massachusetts 02116

C is attached hereto.

U.S.

X was filed on April 18, 2001 asApplication Serial No. 09/838,561

and was amended on \_\_\_\_\_

(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design) before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

**CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)**

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:  Education,  Health

As no such applications have been filed.

such applications have been filed as follows:

**EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
INDIA	21689 NO. 16. DEPARTMENT		<input type="checkbox"/> Yes <input type="checkbox"/> No
INDIA			<input type="checkbox"/> Yes <input type="checkbox"/> No
INDIA			<input type="checkbox"/> Yes <input type="checkbox"/> No
INDIA			<input type="checkbox"/> Yes <input type="checkbox"/> No
X was filed on April 18, 2001 as			<input type="checkbox"/> Yes <input type="checkbox"/> No

**ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

(6 MONTHS FOR DESIGN) PRIOR TO THIS STATEMENT  
and was originated on \_\_\_\_\_

I, the undersigned, do hereby declare that I have invented the subject matter described in the specification which is particularly made up and described in the claims set forth in this application, and that I have not previously disclosed or published the same, either directly or indirectly, in whole or in part, except as set forth in the specification, and that I have not previously applied for a patent or other right to the subject matter described in the specification, except as set forth in the specification, and that I have not previously assigned or agreed to assign to the United States, except those defined below, and understand the contents of the specification, including the claim amendment referred to hereinabove.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, 37 CFR 1.13.

**CLAIM FOR BENEFIT OF U.S. PROVISIONAL APPLICATION(S) §**

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below. I declare that the priority in each matter has not lapsed.

60/192,002

(Application Serial No.)

March 24, 2000

(Filing Date)

All applications have been filed

(Application Serial No.)

(Filing Date)

ALL FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
OR DESIGN(S) PRIOR TO THIS U.S. APPLICATION

Country	Application Number	Date of Filing (International Date)	Priority Claimed (U.S. Application)	Priority Claimed (Foreign Application)
			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS  
BUT LESS THAN 16 MONTHS FOR DESIGN(S) PRIOR TO THIS U.S. APPLICATION

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

I hereby claim the benefit under Title 35, United States Code, §120 of any earlier United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the earlier application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112; I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date(s) of the earlier application(s) and the national or PCT international filing date of this application. As to subject matter of this application which is common to my earlier application(s), if any, described below, I do not know and do not believe that the same was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date(s) of said earlier application(s), or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date(s) of said earlier application(s) on an application filed more than twelve months (six months if this application is for a design) before the filing of said earlier application(s); and I acknowledge that no application for patent or inventor's certificate on said subject matter has been filed by me or my representatives or assigns in any country foreign to the United States except those identified herein.

09/634,955

(Application Serial No.)

August 8, 2000

(Filing Date)

(Status)

(patented,pending,aband.)

09/816,760

(Application Serial No.)

March 23, 2001

(Filing Date)

(Status)

(patented,pending,aband.)

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

of Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA 02139.

(Application Serial No.) (Title) (Status)  
Send Correspondence to Amy E. Mandragouras, Esq. at Customer Number: 000959 whose  
address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: (name and telephone number)

Amy E. Mandragouras, Esq., (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I, RACHEL MEYERS, as a named inventor, hereby appoint the following attorney and his or her associate or associates to prosecute this application and transact all business connected therewith:

<b>Full name of first inventor</b>	Rachel Meyers	Date	Reg. No. 33,622 Date 10/22/82
<b>Inventor's signature</b>	Rachel Meyers	Date	Reg. No. 33,622 Date 10/22/82
<b>Residence</b>	115 Devonshire Road Newton, MA 02468	Reg. No. 33,595 Reg. No. 36,207	Reg. No. 33,622 Reg. No. 36,390
<b>Citizenship</b>	U.S.A.	Reg. No. 38,974 Reg. No. 36,375	Reg. No. 33,622 Reg. No. 36,390
<b>Post Office Address (if different)</b>	35,859 Jeanne M. DiGiorgio	Reg. No. 41,910	Reg. No. 33,622 Reg. No. 36,390
Megan M. Williams	Reg. No. 42,219		
Nicholas P. Tolosa III	Reg. No. 36,375		

<b>Full name of second inventor</b>	Mark H.Josh	Date	Reg. No. 35,436 Reg. No. 37,774
<b>Inventor's signature</b>	Mark H. Josh	Date	Reg. No. 35,436 Reg. No. 37,774
<b>Residence</b>	22 Reynolds Avenue Natick, MA 01760	Reg. No. 43,213 Reg. No. 36,105	Reg. No. 35,239
<b>Citizenship</b>	U.S.A.	Reg. No. 378 Sidney Street, Cambridge, MA 02129	
<b>Post Office Address (if different)</b>	Mandatours, Inc. at Customer Number 3000959 whose address is: 35,859 Ceskild LLP, 23 State Street, Boston, MA 02109		

<b>Full name of third inventor, if any</b>	Mark Williamson	Date	
<b>Inventor's signature</b>	Mark Williamson	Date	
<b>Residence</b>	15 Stonecrest Drive Saugus, MA 01906	Reg. No. 378 Sidney Street, Cambridge, MA 02129	
<b>Citizenship</b>	U.S.A.	Reg. No. 378 Sidney Street, Cambridge, MA 02129	
<b>Post Office Address (if different)</b>	35,859 Ceskild LLP, 23 State Street, Boston, MA 02109	Reg. No. 378 Sidney Street, Cambridge, MA 02129	
I declare that I have made a full disclosure of all prior art which may be relevant to the subject matter of this application and that I have not willfully falsified statements made in this application or in any statement made in connection therewith, or both, under section 106, 107, 111 or 112 of the United States Patent Law. I further declare that such willful false statements may jeopardize the validity of the application or any patent issued thereon.			

Full name of fourth inventor, if any Laura A. Rudolph-Owen	Date
Inventor's signature	
Residence 186 Arborway, #1, Jamaica Plain, MA 02130	
Citizenship U.S.A.	
Post Office Address (if different)	
Post Office Address (if different)	

Full name of sole or first inventor Ruth Gimeno	Date
Inventor's signature <i>Ruth Gimeno</i>	X 10/3/01
Residence 65 BEVERLY RD, WELLESLEY, MA 02481 250 Commonwealth Avenue, Apt. No. 23, Boston, Massachusetts 02116	4/26 (0/3/01)
Citizenship U.S.A.-GERMANY	PG. 10/3/01
Post Office Address (if different)	
Post Office Address (if different)	

Full name of third inventor, if any Mark Williams, Sr. for children, right, etc.	
Residence 1A Street, Boston, MA 02116	
Post Office Address (if different)	



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

MAY 31, 2002

PTAS

Commissioner for Trademarks  
Arlington, VA 22202-3513  
[www.uspto.gov](http://www.uspto.gov)

LAHIVE & COCKFIELD, LLP  
AMY E. MANDRAGOURAS, ESQ.  
28 STATE STREET  
BOSTON, M.A. 02109



\*102046442A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF  
THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS  
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER  
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/25/2002

REEL/FRAME: 012748/0645  
NUMBER OF PAGES: 16

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR: MEYERS, RACHEL DOC DATE: 10/05/2001

ASSIGNOR: \_\_\_\_\_ DATE: 01/04/2002

COOK, WILLIAM JAMES

ASSIGNMENT WILLIAMSON, MARK DOC DATE: 01/04/2002

ASSIGNOR: RUDOLPH-OWEN, LAURA A. DOC DATE: 10/03/2001

ASSIGNOR: GIMENO, RUTH DOC DATE: 10/03/2001

ASSIGNEE:  
MILLENNIUM PHARMACEUTICALS, INC.  
75 SIDNEY STREET  
CAMBRIDGE, MASSACHUSETTS 02139

012748/0645 PAGE 2

SERIAL NUMBER: 09838561  
PATENT NUMBER:

FILING DATE: 04/18/2001  
ISSUE DATE:

MARCUS KIRK, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

FORM PTO-1595

(Rev. 6-93)

OMB No. 0651-0011 (exp. 4/94)

Tab settings ⇡ ⇢ ⇢

04-08-2002



102046442

To the Honorable Commissione

## 1. Name of conveying party(ies):

- 1) Rachel Meyers
- 2) William James Cook
- 3) Mark Williamson
- 4) Laura A. Rudolph-Owen
- 5) Ruth Gimeno

3-25-02

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance

- Assignment       Merger  
 Security Agreement       Change of Name  
 Other \_\_\_\_\_

Execution Dates: 1) October 5, 2001; 2) January 4, 2002; 3)  
October 4, 2001; 4) October 3, 2001; and 5) October 3, 2001

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)  
09/838,561Additional numbers attached?  Yes  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Amy E. Mandragouras, Esq.

Internal Address: Lahive &amp; Cockfield, LLP

Street Address: 28 State Street

City: Boston State: MA ZIP: 02109

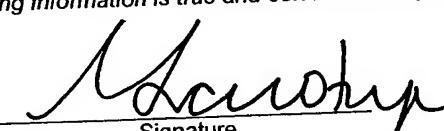
DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Maria C. Laccotripe, Ph.D.  
Limited Recognition Under CFR §10.9(b)

Name of Person Signing



March 15, 2002

Date

Total number of pages including cover sheet, attachments, and document:

16

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and TrademarksBox Assignment  
Washington, D.C. 20231

04/2002 LMUELLER 00000085 09838561

40.00 OP

FD-581

SHEET

U.S. DEPARTMENT OF  
COMMERCE  
Patent and Trademark Office

Attached original documents or copy thereof.

▽ MNI-134CP2

## 2. Name and address of receiving party(ies)

Name: Millennium Pharmaceuticals, Inc.

Internal Address: \_\_\_\_\_

Street Address: 75 Sidney Street

City: Cambridge State: Massachusetts  
ZIP: 02139Additional name(s) & address(es) attached?  Yes  No2002 MAR 25 PM 2:02  
OFFICE OF PUBLIC RECORDS  
FINANCE SECTION

1

## 6. Total number of applications and patents involved:

7. Total fee (37 CFR 3.41). \$ 40.00

 Enclosed Authorized to be charged to deposit account

## 8. Deposit account number:

12-0080 (deficiency only)

ASSIGNMENT

We, Rachel Meyers of Newton, MA, William James Cook of Natick, MA, Mark Williamson of Saugus, MA, Laura A. Rudolph-Owen of Jamaica Plain, MA, and Ruth Gimeno of Boston, MA, in consideration of One Dollar and other valuable consideration paid to us by

Millennium Pharmaceuticals, Inc.

a corporation of Delaware, having its principal place of business at 75 Sidney Street, Cambridge, MA, 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Millennium Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

32142, 21481, 25964, 21686, NOVEL DEHYDROGENASE MOLECULES AND USES  
THEREFOR

described in an application

- executed by us of even date herewith and about to be filed
- Serial No. 09/838,561, filed on April 18, 2001

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 5 day of Oct, 2001.

By: Rachel Meyers  
 Rachel Meyers

State of Massachusetts )  
 )ss  
 County of Middlesex )

Then personally appeared the above named Rachel Meyers and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 5<sup>th</sup> day of October, 2001.

Anne Sherry  
 Notary Public (ANN SHERRY)  
 My Commission Expires 4/19/07

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
William James Cook

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named William James Cook and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Mark Williamson

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Mark Williamson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Laura A. Rudolph-Owen

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Laura A. Rudolph-Owen and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Ruth Gimeno

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Ruth Gimeno and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

ASSIGNMENT

H. L. MATTISON MP12000-079ARICP

We, Rachel Meyers of Newton, MA, William James Cook of Natick, MA, Mark Williamson of Saugus, MA, Laura A. Rudolph-Owen of Jamaica Plain, MA, and Ruth Gimeno of Boston, MA, in consideration of One Dollar and other valuable consideration paid to us by

Millennium Pharmaceuticals, Inc.

a corporation of Delaware, having its principal place of business at 75 Sidney Street, Cambridge, MA, 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Millennium Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

32142, 21481, 25964, 21686, NOVEL DEHYDROGENASE MOLECULES AND USES  
THEREFOR

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Rachel Meyers

State of Massachusetts )  
                          )  
                          )ss  
County of             )

Then personally appeared the above named Rachel Meyers and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
William James Cook

State of Massachusetts      )  
                                )  
                                )ss  
County of                    )  
                                )

Then personally appeared the above named William James Cook and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this 4<sup>th</sup> day of October, 2001.

By: X Mark Williamson  
Mark Williamson

State of Massachusetts      )  
                                )  
                                )ss  
County of Middlesex      )

Then personally appeared the above named Mark Williamson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 4<sup>th</sup> day of October, 2001.

Ann Sherry  
Notary Public (ANN SHERRY)

My commission expires: 4/19/07

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Laura A. Rudolph-Owen

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Laura A. Rudolph-Owen and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.  
\_\_\_\_\_  
\_\_\_\_\_

Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Ruth Gimeno

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Ruth Gimeno and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

Notary Public

My commission expires: \_\_\_\_\_

ASSIGNMENT

L. DOLPH - OWEN  
A12000 - 079 PIR ICPZ

We, Rachel Meyers of Newton, MA, William James Cook of Natick, MA, Mark Williamson of Saugus, MA, Laura A. Rudolph-Owen of Jamaica Plain, MA, and Ruth Gimeno of Boston, MA, in consideration of One Dollar and other valuable consideration paid to us by

Millennium Pharmaceuticals, Inc.

a corporation of Delaware, having its principal place of business at 75 Sidney Street, Cambridge, MA, 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Millennium Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Rachel Meyers

State of Massachusetts )  
                        )ss  
County of             )

Then personally appeared the above named Rachel Meyers and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
William James Cook

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named William James Cook and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Mark Williamson

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Mark Williamson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this 3<sup>rd</sup> day of October, 2001.

By: Laura Rudolph-Owen  
Laura A. Rudolph-Owen

State of Massachusetts      )  
                                )  
                                )ss  
County of Middlesex      )

Then personally appeared the above named Laura A. Rudolph-Owen and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 3<sup>rd</sup> day of October, 2001.

Ann Sherry  
Notary Public (ANN SHERRY)  
My commission expires: 4/19/07

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Ruth Gimeno

State of Massachusetts      )  
                                )  
                                )ss  
County of                      )

Then personally appeared the above named Ruth Gimeno and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

We, Rachel Meyers of Newton, MA, William James Cook of Natick, MA, Mark Williamson of Saugus, MA, Laura A. Rudolph-Owen of Jamaica Plain, MA, and Ruth Gimeno of <sup>BOSTON, MA,  
WELLESLEY</sup> <sup>RS/10/31/01</sup> in consideration of One Dollar and other valuable consideration paid to us by

Millennium Pharmaceuticals, Inc.

a corporation of Delaware, having its principal place of business at 75 Sidney Street, Cambridge, MA, 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Millennium Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Rachel Meyers

State of Massachusetts )  
                        )ss  
County of             )

Then personally appeared the above named Rachel Meyers and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
William James Cook

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named William James Cook and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Mark Williamson

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Mark Williamson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Laura A. Rudolph-Owen

State of Massachusetts )  
                        )ss  
County of             )

Then personally appeared the above named Laura A. Rudolph-Owen and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this 3<sup>rd</sup> day of October, 2001.

By: Ruth Gimeno  
Ruth Gimeno

State of Massachusetts )  
                        )ss  
County of Middlesex )

Then personally appeared the above named Ruth Gimeno and acknowledged the foregoing instrument to be his/her free act and deed, before me, this 3<sup>rd</sup> day of October, 2001.

Ann Sherry  
Notary Public (ANN SHERRY)

My commission expires: 4/19/07

ASSIGNMENT

W.J. Cook  
MP1 2000-079 PIR CPZ

Handover WJC

We, Rachel Meyers of Newton, MA, William James Cook of New London, NH, Mark Williamson of Saugus, MA, Laura A. Rudolph-Owen of Jamaica Plain, MA, and Ruth Gimeno of Boston, MA, in consideration of One Dollar and other valuable consideration paid to us by

Millennium Pharmaceuticals, Inc.

a corporation of Delaware, having its principal place of business at 75 Sidney Street, Cambridge, MA, 02139, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

Millennium Pharmaceuticals, Inc.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

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And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Rachel Meyers

State of Massachusetts )  
 )ss  
County of )

Then personally appeared the above named Rachel Meyers and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this 4 day of January, <sup>2001</sup>2001.

By: X William James Cook  
William James Cook

Massachusetts  
State of New Hampshire )  
                            ) s.s.  
County of Middlesex )

Then personally appeared the above named William James Cook and acknowledged the foregoing <sup>AS</sup> instrument to be his/her free act and deed, before me, this 4<sup>th</sup> day of January, <sup>2001</sup>2001.

Ann Sherry  
Notary Public (ANN SHERRY)

My commission expires: 4/19/07

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Mark Williamson

State of Massachusetts     )  
                              )  
County of                  )

Then personally appeared the above named Mark Williamson and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Laura A. Rudolph-Owen

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Laura A. Rudolph-Owen and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

WITNESS my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

By: \_\_\_\_\_  
Ruth Gimeno

State of Massachusetts      )  
                                )ss  
County of                    )

Then personally appeared the above named Ruth Gimeno and acknowledged the foregoing instrument to be his/her free act and deed, before me, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_